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7. *H. brevirostre* (Ehrh.) B. & S. is a larger moss, with more irregularly pinnate mode of branching and the serration of the leaf more conspicuous than in the following species, which it somewhat resembles when dried. In the field it would be more often mistaken for *squarrosum*, because of its spreading but not reflexed leaves. It is not common.

8. *H. Pyrenaicum* (Spruce) Lindb. is a synonym for *Hypnum Oakesii* Sulliv. In this species the serration of leaf is decided but fine, the nerve is distinctly single to the middle of the leaf, the cells are papillose, and uniform to the colored base of insertion on the stem. It grows on old logs and on earth in cool, damp woods.

The distinctions between species are well given in Dixon & Jameson's Handbook of British mosses, in the fine print. This is still our only available Handbook covering the whole field, as the Lesquereux & James Manual is superseded by more recent works. Husnot's Muscologia Gallica, is complete, and is useful for reference. In Rabenhorst's Kryptogamen-Flora the mosses by Limpricht have just reached the *Hylocomiums*, which have not yet been issued. Braithwaite's British Moss-Flora, so valuable in many genera, has only begun on the Hypnaceae. Dr. Grout's book "Mosses with a Hand-Lens" is now ready for the use of beginners, and we hope other more advanced works will follow.

ILLUSTRATED GLOSSARY—Concluded.

The researches of Philibert have shown that the endostome, not the exostome, corresponds to the peristome of the mosses having a single row of teeth.

Processes, see under *peristome.*

Rostellate, (of the operculum) with a short beak.

Rostrate, (of the operculum) with a long beak. [Figs. 30 and 32.]

Rough, same as *papillose.*

Scabrous, same as *papillose.*

Segments see *peristome.*

Seta, the stalk on which the capsule is borne. [Figs. 30, 35, and 40.]

Sporangium, often applied to the capsule, but by some authors restricted to the spore-sac, or inner sac of the capsule containing the spores.

Spores, small round bodies contained in the capsule, serving the purpose of seeds, but in no way homologous with them. [Fig. 43, *e.*]

Sporogonium, the sporophyte or spore bearing part of the moss.

Stegocarpous, having the capsule operculate.

Stomata, spores in the walls of capsules, surrounded by special guard-cells and serving the same purpose as the stomata in the epidermis of the leaves of the flowering plants. They may be superficial as in Fig. 44, or immersed, i. e. sunken and nearly covered by other cells as in Fig. 44a.

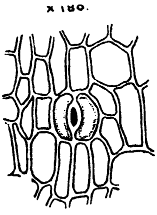

Fig. 44.

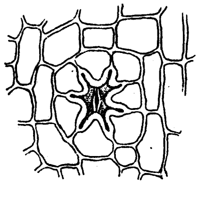

Fig. 44a.

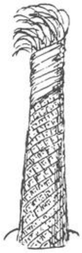

Fig. 45.

Struma. a goitre-like swelling on one side at the base of the capsule. [Fig. 32.]

Strumose, having a struma.

Sulcate (of the capsule) deeply furrowed. [Fig. 39.]

Systilius (the lid continuing fixed to the columella, and thus elevated above the capsule when dry). [Fig. 37.]

Tesselate, checkered in little squares; applied particularly to the peristomes of some of the Tortulaceae. [Fig. 45.]

Tooth, see under *peristome.*

Trabeculate (of the peristome teeth) with prominent transverse bars. [Fig. 31.]

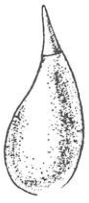

Fig. 46.

Tumid, *Turgid*, appearing as if swollen from pressure within.

Turbinate, top shaped, *e. g.*, capsule of *Bryum turbinatum.*

Umbonate, round with a projecting-point in the centre.

Urceolate, shaped like an urn or pitcher.

Vaginula, the cellular sheath surrounding the base of the seta, originally the lower part of the archegonium.

Veil, the calyptra.

Ventricose, bulging on one side. [Fig. 46.]

NOTES ON BUXBAUMIA.

Mr. R. S. Williams, who has a note on *Buxbaumia* in the Journal of the New York Botanical Garden for July, 1900, and another in the Bulletin of the Torrey Botanical Club for August, 1900, states that we have three good species in the United States, *B. indusiata*, Brid., with two-celled superficial stomata, and two others, *B. aphylla* L., and *B. Piperi* Best, with one-celled immersed stomata. The first two range across the continent, the last has not yet been found east of the Rockies.

This distinction between our two eastern species will be welcomed by those who have had difficulty in determining them. This distinction is easily observed by mounting a portion of the wall of the capsule near the base. This distinction is explained and illustrated in the conclusion of the Illustrated Glossary in this number.

Mr. Williams has collected *B. aphylla* in the New York Botanical Garden. He states that, in his observation, *Buxbaumia* always grows on rotten wood or soil containing fragments of rotten wood.—*A. J. G.*

Mr. Windle's note in the October BRYOLOGIST on *Buxbaumia aphylla* was very interesting to me, because it tallied very closely with my experience with that interesting species. He spoke of finding the plant in an immature state December 1st, and as having shed its spores by March 1st, which I think is almost always correct. But this year I collected it on the trunk of a tree in perfect fruit, with not a spore shed, September 15th. In 1899 I collected my material February 1st, and in 1900, January 1st. I have found this moss in four localities in Amesbury, Mass. Every one of these locations is on the north side of a hill, as they were in Mr. Windle's find. I